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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/287,570	04/06/1999	AKIHISA USHIKAWA	Q53866	6456

7590 04/12/2005  
SUGHRUE MION ZINN  
MACPEAK & SEAS  
2100 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20037

EXAMINER
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ABELSON, RONALD B

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/287,570

Applicant(s)

USHIROKAWA ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 168-193 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 168, 169, 171, 172, 174, 175, 177, 178, 180-182, 184, 186, 187, 189, 190, 192 and 193 is/are rejected.
- 7) ☒ Claim(s) 170, 173, 176, 179, 183, 185, 188 and 191 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/22/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 168, 171, 174, 177, 186, and 189 are rejected under 35 U.S.C. 102(b) as being anticipated by Marchetto (US 5,513,215).

Marchetto teaches providing a vacant period (fig. 8 section 174) in which no communication data is present, in a data transmission (fig. 8 frame 170) from a base station (fig. 1 box 32a) to a mobile (fig. 1 box 36, col. 10 lines 17-19).

Marchetto teaches inserting a first pilot signal, such that a beginning of the first pilot signal is contiguous with the end of the data transmission prior to the vacant period (fig. 8 box P(-2L)). Note, box P(-2L) is contiguous with the end of data being transmitted just as box P(M-2L) is contiguous with the end of data box 172.

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Marchetto teaches inserting a second pilot, such that an end of the second pilot signal is contiguous with a beginning of a data transmission after the vacant period (fig. 8 box P(2L)).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 169, 172, 175, and 178 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchetto as applied to claims 168, 171, and 175 above, and further in view of applicant's admitted prior art 'AAPA'.

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In addition to the limitations previously addressed, Marchetto teaches extracting at least one of the first and second pilot signals from the data transmission and measuring a reception quality of the data transmission on the basis of the at least one extracted pilot signal (CIR, col. 9 lines 16-21).

Marchetto is silent on generating a transmission power control signal, which controls transmission power of a signal from the base station to the mobile station, on the basis of the measured reception quality and transmitting the transmission power control signal from the mobile station to the base station.

AAPA teaches generating a transmission power control signal, which controls transmission power of a signal from the base station to the mobile station, on the basis of the measured reception quality and transmitting the transmission power control signal from the mobile station to the base station (pg. 5 lines 11-19).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Marchetto by installing within the mobile a device to measure the quality of the pilot signal received and to transmit the quality measurement to the base station. This can be accomplished according to the teachings of AAPA. This would improve the

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system by having the base station control its power transmission level based on feedback from the mobile.

5. Claims 180-182, 184, 187, 190, 192, and 193 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchetto in view of AAPA.

Marchetto teaches providing a vacant period (fig. 8 section 174) in which no communication data is present, in a data transmission (fig. 8 frame 170) from a base station (fig. 1 box 32a) to a mobile (fig. 1 box 36, col. 10 lines 17-19).

Marchetto teaches inserting a first pilot signal, such that a beginning of the first pilot signal is contiguous with the end of the data transmission prior to the vacant period (fig. 8 box  $P(-2L)$ ). Note, box  $P(-2L)$  is contiguous with the end of data being transmitted just as box  $P(M-2L)$  is contiguous with the end of data box 172.

Marchetto teaches inserting a second pilot, such that an end of the second pilot signal is contiguous with a beginning of a data transmission after the vacant period (fig. 8 box  $P(2L)$ ).

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Marchetto teaches a SIR measuring portion which measures a reception quality of the received data transmission on the basis of the at least one extracted pilot signal (CIR, col. 9 lines 16-21).

Marchetto is silent on generating a transmission power control signal, which controls transmission power of a signal from the base station to the mobile station, on the basis of the measured reception quality and transmitting the transmission power control signal from the mobile station to the base station.

AAPA teaches generating a transmission power control signal, which controls transmission power of a signal from the base station to the mobile station, on the basis of the measured reception quality and transmitting the transmission power control signal from the mobile station to the base station (pg. 5 lines 11-19).

***Allowable Subject Matter***

6. Claims 170, 173, 176, 179, 183, 185, 188 and 191 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including

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all of the limitations of the base claim and any intervening claims.

### **Conclusion**

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald

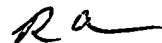


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Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ronald Abelson  
Examiner  
Art Unit 2666

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CHI PHAM  
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